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**AS7974/3**

Submitted for recognition as an American National Standard

FEDERAL SUPPLY CLASS  
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## **AEROSPACE STANDARD**

CONNECTOR, PLUG, ATTACHABLE, EXTERNAL ELECTRIC  
POWER, AIRCRAFT, SINGLE-JACKETED CABLE  
ASSEMBLIES, 115/200 VOLT, 400 HERTZ

**AS7974/3**  
SHEET 1 OF 5

THE REQUIREMENTS FOR ACQUIRING THE PRODUCT DESCRIBED HEREIN SHALL CONSIST OF THIS SPECIFICATION SHEET AND THE ISSUE OF THE FOLLOWING SPECIFICATION LISTED IN THAT ISSUE OF THE DEPARTMENT OF DEFENSE INDEX OF SPECIFICATIONS AND STANDARDS (DODISS) SPECIFIED IN THE SOLICITATION: MIL-C-7974.

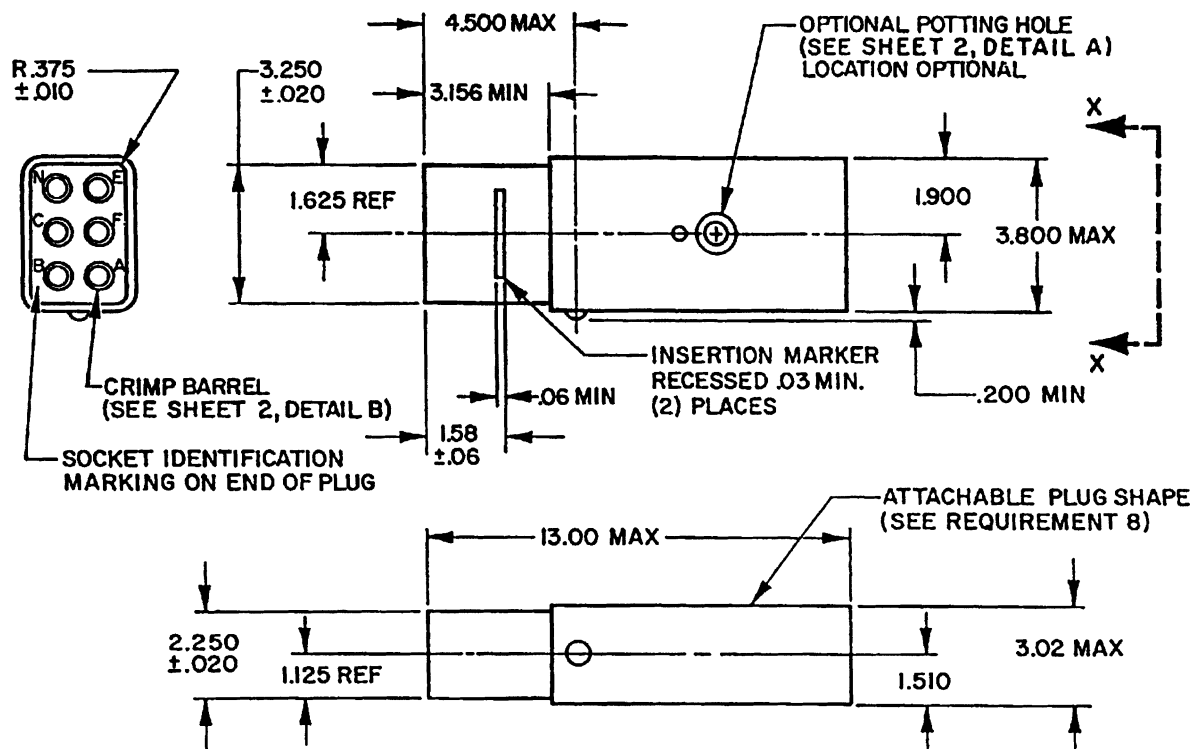


FIGURE 1. ATTACHABLE PLUG.

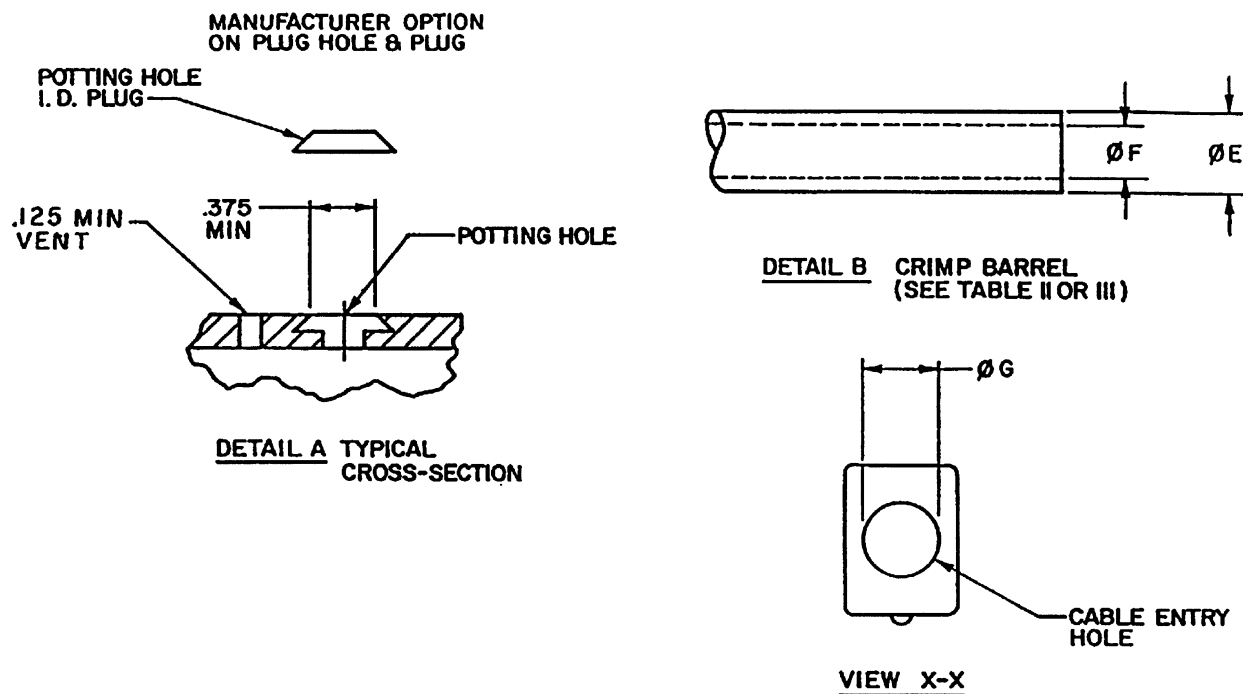


FIGURE 1. ATTACHABLE PLUG (CONTINUED).

TABLE I. METRIC CONVERSION.

INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM
.010	2.54	.230	5.84	.578	14.68	1.900	48.26
.020	5.08	.232	5.89	.620	15.75	1.980	50.29
.025	6.35	.293	7.44	.640	16.26	2.250	57.15
.060	15.24	.316	8.03	1.125	28.58	3.020	76.71
.125	3.18	.375	9.53	1.510	38.35	3.156	80.16
.129	3.28	.438	11.13	1.580	40.13	3.250	82.55
.135	3.43	.458	11.63	1.605	40.77	3.800	96.52
.200	5.08	.518	13.16	1.625	41.28	4.500	114.30
.215	5.46	.528	13.41	1.800	45.72	13.00	330.2
.222	5.64	.558	14.17				

TABLE II. TYPE I ATTACHABLE PLUG DETAILS.

PART NUMBER	WIRE SIZE			CRIMP BARREL DIMENSIONS				CABLE ENTRY HOLE NOM.
				A, B, C, N		E & F CONTROL		
	A, B, C	N	E AND F CONTROL	E DIA	F DIA	E DIA	F DIA	G DIA
M7974/3A	0 AWG	3x6 AWG	12 AWG	.578/ .558	.458/ .438	.230/ .215	.135/ .129	1.595
M7974/3B	00 AWG	3x4 AWG	12 AWG	.640/ .620	.528/ .518	.230/ .215	.135/ .129	1.865

TABLE III. TYPE II ATTACHABLE PLUG DETAILS.

PART NUMBER	WIRE SIZE			CRIMP BARREL DIMENSIONS				CABLE ENTRY HOLE NOM.
				A, B, C, N		E & F CONTROL		
	A, B, C	N	E AND F CONTROL	E DIA	F DIA	E DIA	F DIA	G DIA
M7974/3C	2x2 AWG	00 AWG	3x18 AWG	.640/ .620	.528/ .518	.316/ .293	.232/ .222	1.980

## REQUIREMENTS:

1. QUALIFICATION REQUIRED.
2. MATERIAL: SEE MIL-C-7974.
3. ATTACHABLE PLUG TYPE:
  - a. TYPE I, ATTACHABLE PLUG FOR SPLIT NEUTRAL CABLE ASSEMBLY CONSTRUCTION.  
  
 STYLE A DESIGNATOR - THE ATTACHABLE PLUG SHALL TERMINATE WITH THE M5756/5-001 CABLE CONSTRUCTION OF THE MIL-C-7974/4 TYPE I, STYLE A CABLE ASSEMBLY.  
  
 STYLE B DESIGNATOR - THE ATTACHABLE PLUG SHALL TERMINATE WITH THE M5756/5-002 CABLE CONSTRUCTION OF THE MIL-C-7974/4 TYPE I, STYLE B CABLE ASSEMBLY.
  - b. TYPE II, ATTACHABLE PLUG FOR SPLIT PHASE CABLE ASSEMBLY CONSTRUCTION.  
  
 STYLE C DESIGNATOR - THE ATTACHABLE PLUG SHALL TERMINATE WITH THE M5756/6-002 CABLE CONSTRUCTION OF THE MIL-C-7974/4 TYPE II, STYLE C CABLE ASSEMBLY.

4. PART NUMBER: SEE EXAMPLE BELOW:

Military designator M7974/ 3 A  
Specification sheet  
Style designator  
See requirement 3

5. THE ATTACHABLE PLUG SHALL BE DESIGNED TO ENSURE THAT THE MIL-C-5756 CABLE JACKET IS SEALED WITHIN THE CONNECTOR AFTER TERMINATION.
6. DIMENSIONS ARE IN INCHES. UNLESS OTHERWISE SPECIFIED, TOLERANCES ON DECIMALS ARE  $\pm 0.025$  ( $\pm 0.64$  MM). METRIC EQUIVALENTS (TO NEAREST .01 MM) ARE GIVEN FOR GENERAL INFORMATION ONLY AND ARE BASED ON 1 INCH = 25.40 MM.
7. ONLY NON-CORROSIVE HARDWARE SHALL BE USED IN THE MANUFACTURE OF THE PLUG.
8. THE SHAPE OF THE OUTSIDE PERIMETER OF THE PLUG BEHIND INTERFACE AREA (FRONT 3.156 INCHES OF THE PLUG) IS OPTIONAL, PROVIDING IT FALLS WITHIN THE RANGE OF THE SPECIFIED DIMENSIONS. OUTSIDE PERIMETER BEHIND INTERFACE AREA MAY INCREASE GRADUALLY.
9. MOLD OR STAMP WIRE SIZE ON THE SOCKET CRIMP BARREL FOR ALL REPLACEMENT ATTACHABLE PLUGS.
10. THE SIZE 12 AWG TERMINAL LUGS AND SOCKET CONTACTS SHALL BE TERMINATED WITH THE MIL-C-22520/24 CRIMP TOOLS. THE SIZE 0 AND 00 AWG TERMINAL LUGS AND SOCKET CONTACTS SHALL BE TERMINATED WITH MS25441 CRIMP TOOL USING MS90485 CRIMP DIES.
11. THE MANUFACTURER SHALL PROVIDE POTTING INSTALLATION INSTRUCTIONS WITH EACH ATTACHABLE CONNECTOR, IF OPTIONAL POTTING HOLES ARE USED.
12. EACH PLUG, WHEN MATED WITH THE MS90362-3 RECEPTACLE, SHALL MEET ALL THE REQUIREMENTS OF MIL-C-7974.
13. USE OF ATTACHABLE PLUG IS LIMITED TO REPLACEMENT FOR MOLDED PLUGS DAMAGED IN SERVICE.